Estimation of inbreeding coefficient in Rusa Deer (Cervus timorensis) using microsatellite loci in Malaysia.

ABSTRACT

To estimate inbreeding coefficient in a small and closed population of Rusa deer (Cervus timorensis) in Malaysia, 38 individual mares were typed from blood samples at thirty nine sets of primer pairs for bovine and reindeer microsatellite loci. The mean number of alleles was 6.77±4.49 per polymorphic loci. The gene diversity over all individuals and loci was 0.52. Departure from Hardy-Weinberg proportions was tested only for two loci (BMS789, BM121). The mean heterozygosity was 0.51±0.30. The associated estimates of FIS was 0.04 ranging between −0.79 and 0.61. The FIS estimate, as well as the mean intraindividual kinship values, was quite low, indicating that the studied population does not suffer from ill effects of inbreeding.

Keyword: Inbreeding coefficient; Rusa deer; Microsatellite loci.